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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,981	03/08/2002	Marvin S Schwartz	214255605002	4846

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01/16/2009

EXAMINER

COBANOGIU, DILEK B

ART UNIT

PAPER NUMBER

3626

MAIL DATE

DELIVERY MODE

01/16/2009

PAPER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/070,981
Filing Date: March 08, 2002
Appellant(s): SCHWARTZ ET AL.

David B. Cochran
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 10/31/2008 appealing from the Office action mailed 1/23/2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,772,585	LAVIN et al.	6-1998
6,047,259	CAMPBELL et al.	4-2000
5,950,168	SIMBORG et al.	9-1999

5,915,971

RAMSAY et al.

6-1999

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 22, 25-27, 35, 37-40, 43, 46-48, 50-51, 53-54 are rejected under 35 U.S.C.

103(a) as being unpatentable over Lavin et al. (hereinafter Lavin) (U. S. Patent No. 5,772,585), Campbell et al. (hereinafter Campbell) (U.S. Patent No. 6,047,259) and further in view of Simborg et al. (hereinafter Simborg) (U.S. Patent 5,950,168).

Claim 22 recites a computer implemented medical record system, comprising:

- i. a display (Lavin; col. 1, line 66 to col. 2, line 5);
- ii. a processor (Lavin; col. 1, line 66 to col. 2, line 5);
- iii. a memory for storing computer readable instructions that cause the processor to render a graphical user interface on the display for inputting data into the medical record system (Lavin; col. 1, line 66 to col. 2, line 5, col. 2, lines 23-38);
- iv. the a graphical user interface including first, second and third data entry screens for documenting a patient encounter and for inputting data into a patient chart stored in the medical record system, wherein the three

data entry screens are organized into a subjective, objective, assessment, and plan (SOAP) format (Lavin; col. 1, line 66 to col. 2, line 17, col. 5, lines 48-56), the graphical user interface further consisting of a reason for visit (or chief complaint) data entry field for receiving a selection of a patient's primary reason for visiting a medical service provider operating the medical record system (Lavin; col. 8, lines 39-58, Figure 12, item 138):

v. the first screen being operative to accept data input relating to summary data, the summary data including patient vital signs, patient complaint, patient allergies, patient medications, and patient problem data (Lavin; col. 6, lines 8-17, col. 7, lines 47 to col. 8, lines 8, col. 8, lines 9-58, Figures 11-12);

vi. the second screen being operative to accept data input relating to patient history and physical examination data (Lavin; col. 8, lines 38-58, Figure 12), wherein the selection received in the reason for visit data entry field causes the processor to automatically select a visit outline from a plurality of visit outlines stored in the memory, the automatically selected visit outline being related to the reason for the patient's visit and to present the visit outline in the second screen, the visit outline guiding the examination by the medical service provider and listing the types of information that should be collected and recorded into the medical record system, wherein the presented visit outline includes an item column listing information that should be collected by the medical service provider in

relation to the selected primary reason for the patient's visit and a value column that lists the type or format of the collected information, and wherein the system dynamically modifies the presentation of the information set forth in the item column of the visit outline in response to a user making a selection from a pre-defined set of choices presented in the value column of the visit outline; and

vii. the third screen being operative to accept data input relating to order entry data, the order entry data being determined by a user of the system by referencing the summary data and the history and physical examination data (Lavin; col. 2, lines 52-64, col. 9, lines 41-57).

- Lavin fails to expressly teach the selection received in the reason for visit data entry field automatically selects a visit outline related to the reason for the patient's visit and presents the visit outline in the second screen, the visit outline guiding the examination by the medical service provider and listing the types of information that should be collected and recorded into the medical record system. However, this feature is well known in the art, as evidenced by Campbell.

In particular, Campbell discloses the selection received in the reason for visit data entry field automatically selects a visit outline related to the reason for the patient's visit and presents the visit outline in the second screen, the visit outline guiding the

examination by the medical service provider and listing the types of information that should be collected and recorded into the medical record system. (Campbell; abstract, col. 1, line 64 to col. 2, line 8, col. 2, lines 14-21, col. 13, lines 10-18).

It would have been obvious to one having ordinary skill in the art at the time of the invention to include the aforementioned limitation as disclosed by Campbell with the motivation of reminding the user to perform services in the protocol and prompt the user to make observations related to the selected diagnoses (Campbell; col. 2, lines 4-8).

- Lavin fails to expressly teach the visit outline includes an item column listing information that should be collected by the medical service provider in relation to the selected primary reason for the patient's visit and a value column that lists the type or format of the collected information, and wherein the system dynamically modifies the presentation of the information set forth in the item column of the visit outline in response to a user making a selection from a pre-defined set of choices presented in the value column of the visit outline. However, this feature is well known in the art, as evidenced by Simborg.

In particular, Simborg discloses the visit outline includes an item column listing information that should be collected by the medical

service provider in relation to the selected primary reason for the patient's visit and a value column that lists the type or format of the collected information, and wherein the system dynamically modifies the presentation of the information set forth in the item column of the visit outline in response to a user making a selection from a pre-defined set of choices presented in the value column of the visit outline. (Simborg; col. 2, line 63 to col. 3, line 13, col. 4, lines 18-29, lines 54-63, col. 5, lines 44-61 and figure 4).

It would have been obvious to one having ordinary skill in the art at the time of the invention to include the aforementioned limitation as disclosed by Simborg with the motivation of quickly providing relevant information to a healthcare provider and filtering out the irrelevant information until it is needed (Simborg; col. 2, lines 4-8).

Claim 25 recites the system of claim 22, further comprising a carepath module linked to the selected visit outline for suggesting a particular medical treatment in response to the data input in the first, second and third screens into the patient's chart, the carepath module automatically determining that additional data entry is required to evaluate the patient's condition in order to make a suggestion and prompting the user of the medical record system to input the additional data.

- Lavin fails to expressly teach a carepath module linked to the selected visit outline for suggesting a particular medical treatment in response to the data input in the first, second and third screens

into the patient's chart. However, this feature is well known in the art, as evidenced by Campbell.

In particular, Campbell discloses a carepath module linked to the selected visit outline for suggesting a particular medical treatment in response to the data input in the first, second and third screens into the patient's chart, the carepath module automatically determining that additional data entry is required to evaluate the patient's condition in order to make a suggestion and prompting the user of the medical record system to input the additional data. (Campbell; abstract, col. 1, line 64 to col. 2, line 8, col. 2, lines 14-21, col. 13, lines 10-18).

It would have been obvious to one having ordinary skill in the art at the time of the invention to include the aforementioned limitation as disclosed by Campbell with the motivation of reminding the user to perform services in the protocol and prompt the user to make observations related to the selected diagnoses (Campbell; col. 2, lines 4-8).

Lavin fails to expressly teach the carepath module automatically determining that additional data entry is required to evaluate the patient's condition in order to make a suggestion and prompting the user of the medical record system to input the additional data.

However, this feature is well known in the art, as evidenced by Simborg.

In particular, Simborg discloses the carepath module automatically determining that additional data entry is required to evaluate the patient's condition in order to make a suggestion and prompting the user of the medical record system to input the additional data.

(Simborg; col. 2, line 63 to col. 3, line 13, col. 4, lines 18-29, lines 54-63, col. 5, lines 44-61 and figure 4).

It would have been obvious to one having ordinary skill in the art at the time of the invention to include the aforementioned limitation as disclosed by Simborg with the motivation of quickly providing relevant information to a healthcare provider and filtering out the irrelevant information until it is needed (Simborg; col. 2, lines 4-8).

Claim 26 recites the system of claim 22, wherein the graphical user interface further includes a plurality of picklists coupled to the selected visit outline for entering data into the medical record system (Lavin; col. 13, line 60 to col. 14, line 11, and Figure 19), the picklists including a plurality of data entry choices programmed into the system that are responsive to a particular item of information to be collected by the medical service provider.

- Lavin fails to expressly teach picklists including a plurality of data entry choices programmed into the system that are responsive to a particular item of information to be collected by the medical service

provider. However, this feature is well known in the art, as evidenced by Campbell.

In particular, Campbell discloses picklists including a plurality of data entry choices programmed into the system that are responsive to a particular item of information to be collected by the medical service provider. (Campbell; abstract, col. 1, line 64 to col. 2, line 8, col. 2, lines 14-21, col. 13, lines 10-18).

It would have been obvious to one having ordinary skill in the art at the time of the invention to include the aforementioned limitation as disclosed by Campbell with the motivation of reminding the user to perform services in the protocol and prompt the user to make observations related to the selected diagnoses (Campbell; col. 2, lines 4-8).

Claim 27 recites the system of claim 22, further comprising a data repository including genogrammatical data, wherein the system graphically maintains the patient's medical history in a genogram (Lavin; col. 7, line 62 to col. 8, line 8, Figures 10-11).

Claim 35 recites a method of managing patient medical treatment data, comprising:

- i. displaying a graphical user interface including first, second and third data entry screens for documenting a patient encounter and for inputting data into a patient chart stored in a medical record system, wherein the three data entry screens are organized into a subjective,

objective, assessment, and plan (SOAP) format (Lavin; col. 1, line 66 to col. 2, line 17, col. 5, lines 48-56);

ii. accepting data in the first screen relating to summary data, the summary data including patient vital signs, patient complaint, patient allergies, patient medications, and patient problem data (Lavin; col. 6, lines 8-17, col. 7, lines 47 to col. 8, lines 8, col. 8, lines 9-58, Figures 11-12);

iii. accepting data in the second screen relating to patient history and physical examination data (Lavin; col. 8, lines 38-58, Figure 12), wherein the second screen is configured by a stored visit outline that is automatically selected from a plurality of stored visit outlines by the medical record system in response to the user selection of a particular reason for the patient's visit to a medical service provider operating the medical record system, the visit outline guiding the examination by the medical service provider and listing the types of information that should be collected and recorded into the medical record system; and

iv. accepting data in the third screen relating to order entry data, the order entry data being determined by a user of the system by referencing the summary data and the history and physical examination data (Lavin; col. 2, lines 52-64, col. 9, lines 41-57).

- Lavin fails to expressly teach the second screen is configured by a stored visit outline that is selected by the medical record system in

response to the user selection of a particular reason for the patient's visit to a medical service provider operating the medical record system, the visit outline guiding the examination by the medical service provider and listing the types of information that should be collected and recorded into the medical record system. However, this feature is well known in the art, as evidenced by Campbell.

In particular, Campbell discloses a stored visit outline that is selected by the medical record system in response to the user selection of a particular reason for the patient's visit to a medical service provider operating the medical record system, the visit outline guiding the examination by the medical service provider and listing the types of information that should be collected and recorded into the medical record system. (Campbell; abstract, col. 1, line 64 to col. 2, line 8, col. 2, lines 14-21, col. 13, lines 10-18). It would have been obvious to one having ordinary skill in the art at the time of the invention to include the aforementioned limitation as disclosed by Campbell with the motivation of reminding the user to perform services in the protocol and prompt the user to make observations related to the selected diagnoses (Campbell; col. 2, lines 4-8).

- Lavin fails to expressly teach the visit outline includes an item column listing information that should be collected by the medical service provider in relation to the selected primary reason for the patient's visit and a value column that lists the type or format of the collected information, and wherein the system dynamically modifies the presentation of the information set forth in the item column of the visit outline in response to a user making a selection from a pre-defined set of choices presented in the value column of the visit outline. However, this feature is well known in the art, as evidenced by Simborg.

In particular, Simborg discloses the visit outline includes an item column listing information that should be collected by the medical service provider in relation to the selected primary reason for the patient's visit and a value column that lists the type or format of the collected information, and wherein the system dynamically modifies the presentation of the information set forth in the item column of the visit outline in response to a user making a selection from a pre-defined set of choices presented in the value column of the visit outline. (Simborg; col. 2, line 63 to col. 3, line 13, col. 4, lines 18-29, lines 54-63, col. 5, lines 44-61 and figure 4).

It would have been obvious to one having ordinary skill in the art at the time of the invention to include the aforementioned limitation as

disclosed by Simborg with the motivation of quickly providing relevant information to a healthcare provider and filtering out the irrelevant information until it is needed (Simborg; col. 2, lines 4-8).

Claim 37 recites the system of claim 22, further comprising a medication pop-up tool accessible from the third screen facilitating entry of medication orders (Lavin; col. 9, lines 41-57, col. 13, line 60 to col. 14, line 11).

Claim 38 recites the system of claim 37, wherein the pop-up tool presents a list of available medications for selection by a user (Lavin; col. 9, lines 41-57, col. 13, line 60 to col. 14, line 11).

Claim 39 recites the system of claim 38, wherein the pop-up tool enables the user of the system to record the history of a selected medication (Lavin; col. 9, lines 41-57, col. 13, line 60 to col. 14, line 11).

Claim 40 recites the system of claim 38, wherein the pop-up tool prompts the user to input data for a new medication (Lavin; col. 14, lines 12-23).

Claim 43 recites the system of claim 22, further comprising add-on notations that can be attached to any element of a visit outline displayed on the second screen to accommodate data entry regarding exceptional situations that are not specifically addressed in the visit outline (Lavin; col. 11, lines 17-35).

Claim 46 recites the system of claim 37, further comprising a pop-up tool for data entry, the pop-up tool facilitating the annotation of a graphical image using text, drawing tools, or both (Lavin; col. 9, lines 58-60, col. 11, lines 17-29).

Claim 47 recites the system of claim 37,

Lavin fails to expressly teach mark locations on a graphical image of a body system. However, this feature is well known in the art, as evidenced by Campbell.

In particular, Campbell discloses mark locations on a graphical image of a body system (Campbell; col. 1, lines 50-60, col. 15, lines 56-64, col. 16 lines 4-12, fig. 7).

It would have been obvious to one having ordinary skill in the art at the time of the invention to include the aforementioned limitation as disclosed by Campbell with the motivation of recording medical observations in database file with each user click (Campbell; col. 16, lines 4-12).

Claims 48 and 50 repeat the same limitations of claim 47, therefore rejected for the same reasons given in the rejection of claim 47 above and incorporated herein.

Claim 51 recites the medical record system of claim 22, wherein the three data entry screens are selected by three tabs located on a top portion of the user interface, and a plurality of data viewing screens are selected by a plurality of tabs located on a side portion of the graphical user interface (Lavin; col. 2, lines 39-51, col. 9, lines 58-65, Figures 14-15).

Claim 53 recites the system of claim 26, wherein the picklist choices are initially set to a normal condition (Lavin; col. 12, lines 38-64).

Claim 54 recites the system of claim 53, further comprising an all normal structure for selecting the normal condition for each choice presented through a picklist (Lavin; col. 12, lines 38-64).

Claims 41, 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lavin et al. (hereinafter Lavin) (U.S. Patent No. 5,772,585), Campbell et al. (hereinafter Campbell) (U.S. Patent No. 6,047,259), Simborg et al. (hereinafter Simborg) (U.S. Patent 5,950,168) and further in view of Ramsay et al. (hereinafter Ramsay) (U. S. Patent No. 5,915,971).

Claim 41 recites the system of claim 38.

Lavin fails to expressly teach a calculator tool to calculate medication dosage. However, this feature is well known in the art, as evidenced by Ramsay.

In particular, Ramsay discloses a calculator tool to calculate medication dosage (Ramsay; col. 2, lines 8-19, col. 3, lines 59-67, col. 6 lines 59-63, fig. 19).

It would have been obvious to one having ordinary skill in the art at the time of the invention to include the aforementioned limitation as disclosed by Ramsay with the motivation of determining an appropriate drug dosage (Ramsay; col. 1, lines 65-66).

Claim 42 repeats the same limitations of claim 41, therefore rejected for the same reasons given in the rejection of claim 41 above and incorporated herein.

(10) Response to Arguments

In the Appeal Brief filed 31 October 2008, Appellant makes the following arguments:

- A. The cited references fail to disclose “automatically selecting a visit outline”.
- B. The cited references fail to disclose “dynamically modifying a visit outline”.
- C. Claim 25 is not *Prima Facie* obvious over cited references Lavin, Campbell and Simborg.
- D. Claim 27 is not *Prima Facie* obvious over cited references Lavin, Campbell and Simborg.

Argument A:

In response to Appellant’s argument, Examiner respectfully submits that claim 22 recites “...the graphical user interface further consisting of a reason for visit (or chief complaint) data entry field for receiving a selection of a patient’s primary reason for visiting a medical service provider operating the medical record system”, Lavin teaches “...The nurse can also enter a patient’s chief complaint in a text box 138 to update and clarify any earlier provided reasons for the visit that were recorded in the appointment scheduling screens at that time the patient made the appointment.” In col. 8, lines 49-54 and figure 12. The claim further recites “the selection received in the reason for visit data entry field causes the processor to automatically select a visit outline from a plurality of visit outlines stored in the memory”. Lavin fails to expressly teach this limitation, however Campbell teaches “...As user enters information (by clicking on

buttons (the physical exam buttons) or entering text), the server dynamically updates the database and evaluates the data to determine whether to prompt the user for additional information by displaying questions and supplemental screens that prompt the user to input medical observations." In col. 13, lines 10-18. Examiner considers that medical observations prompted the user to input in response to user's previous input is a visit outline. The motivation to combine Lavin and Campbell is to reminding the user to perform services in the protocol and prompt the user to make observations related to the selected diagnoses (Campbell; abstract and col. 2, lines 4-8).

Argument B:

In response to Appellant's argument, Examiner respectfully submits that claim 22 recites "...the system dynamically modifies the presentation of the information set forth in the item column of the visit outline in response to a user making a selection from a pre-defined set of choices presented in the value column of the visit outline", Lavin fails to teach dynamically modifying the visit outline, however Simborg teaches "A "KnowMed" is a term used to describe a medical knowbot. A "knowbot" is a "knowledge robot" or software agent which can be "trained" or configured to filter large amounts of available data and present only data considered relevant to an individual user. Thus, a KnowMed is a software agent acting on behalf of a user to determine which data from among the large EMR database of a patient should be displayed and in what format." In col. 4, lines 54-63. Examiner considers that presenting the data relevant to an individual user as presenting dynamically modified data. The motivation to combine Lavin and

Simborg is "quickly providing relevant information to a health care provider and filtering out the irrelevant information until it is needed." In col. 1, lines 52-55.

Argument C:

In response to Appellant's argument, Examiner respectfully submits that as explained in the rejection above, Lavin fails to expressly teach a carepath module linked to the selected visit outline for suggesting a particular medical treatment in response to the data input in the first, second and third screens into the patient's chart. However, this feature is well known in the art, as evidenced by Campbell; Campbell teaches "The system software displays interactive user interface screens for conducting an interactive medical exam, generating diagnoses of abnormal observations, and managing a treatment protocol. The treatment protocol can be integrated with the interactive medical exam component of the system. For example, the doctor can select a treatment protocol from a user interface displaying computer generated diagnoses. In response, the system schedules the treatment protocol such that future interactive exam sessions display reminders to perform services in the protocol, and prompt the user to make observations related to the selected diagnoses." (Campbell; col. 1, line 64 to col. 2, line 8); "The interactive medical exam component of the system displays physical exam screens that guide the user through a complete medical exam. The screens display predetermined observations and enable the user to select among the observations to record abnormal findings. The system dynamically updates the patient's record and evaluates the input to generate additional context sensitive prompts to record additional observations." (Campbell; col. 2, lines 14-21) The motivation to combine these

references would be reminding the user to perform services in the protocol and prompt the user to make observations related to the selected diagnoses (Campbell; col. 2, lines 4-8). Lavin fails to expressly teach the carepath module automatically determining that additional data entry is required to evaluate the patient's condition in order to make a suggestion and prompting the user of the medical record system to input the additional data. However Simborg teaches "...The new entry is the event which triggers the New Problem KnowMed. Upon selecting the new data item, the system will automatically display data items in a special "Verify" category in addition to the data item selected. FIG. 4 shows an example of a New Problem KnowMed for the Angina Pectoris. The data items in the Verify category are those which the user has most often added to other patients' records when adding a new diagnosis of Angina Pectoris. The question marks (?) next to each item are to indicate that the user must select each item that s/he wishes to enter into this patient's record. (Simborg; col. 2, line 63 to col. 3, line 13, col. 4, lines 18-29, lines 54-63, col. 5, lines 44-61 and figure 4). The motivation to combine these references would be quickly providing relevant information to a healthcare provider and filtering out the irrelevant information until it is needed (Simborg; col. 2, lines 4-8).

Argument D:

In response to Appellant's argument, Examiner respectfully submits that Lavin teaches a system and method for managing patient medical records, which include patient medical background information, such as medically significant habits for a patient, as well as the family history of disease are important to a physician (Lavin; col. 7, lines 47-

61. Lavin continues to teach "As with the patient's individual past medical history screen, the family history screen 112 includes a disease list 114 from which specific diseases may be selected to be associated with a relative. Associated with screen 112 is the Family History table 326 ("Family.sub.-- Hist") (shown in FIGS. 21-24) in the relational database. Text entry areas for entering a relative's name 118 in relation 116 may be used by the medical practitioner to enter in the names and relationships of family members and any associated past disease or illness. The resulting information for the relatives of a patient are shown in parallel charts 120 at the bottom of the family history screen 112." Examiner considers a broad yet reasonable interpretation of Lavin to also teach Applicant's recitation of genogrammatical data, which was well known in the art at the time of this application as indicated by the Appellant.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/D. B. C./

Examiner, Art Unit 3626

1/13/2009

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